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09/128,289 08/03/98 BURKE W 2041

| EXAMINER |
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IM62/1025

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| ART UNIT | PAPER NUMBER |

1771

DATE MAILED:

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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/128,289

Applicant(s)

Burke et al.

Examiner

Cheryl Juska

Group Art Unit

1771



☐ Responsive to communication(s) filed on _____.

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-17 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-17 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 4

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Art Unit: 1771

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informality: There are several references to patent application numbers rather than the updated patent issue numbers.

Additionally, the recitation to "Patent Cooperation Treaty Application 96/38298" on page 9, line 13, is incorrect. The cited number is not an application number but rather the actual issue number (WO 96/38298). Appropriate correction is required.

2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The specification does not provide support for the limitation of claim 9, wherein a solid skin is formed.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1 and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Art Unit: 1771

5. Claim 1 recites the limitation "the carrier fabric" in lines 5-6 of the claim. There is insufficient antecedent basis for this limitation in the claim.
6. Claim 9 is indefinite for the claim appears to limit the blowing agent to being present *as a layer*, or skin, on the surface of the foam rubber. This is contradictory to what is generally accepted in the art of foam blowing agents.

Claim Rejections - 35 USC § 102/103

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1, 3, 4, and 11-13 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over European Patent 702 929 issued to Kerr.

Claim 1 is drawn to a floor mat comprising:

- (a) a nonwoven substrate,

Art Unit: 1771

(b) a pile material tufted into said nonwoven substrate,

(c) a vulcanized expanded rubber backing sheet integrated to non-pile side of said substrate, wherein said rubber backing sheet comprises a blowing agent to produce a closed cell structure foam rubber, and

(d) optionally, solid vulcanized rubber reinforcement strips present along at least one of the borders of the mat;

wherein said floor mat possesses suitable flexibility to be laundered on a regular basis in a standard industrial washing machine without appreciably damaging said mat or said machine; and

wherein said nonwoven substrate possesses a heat shrinkage factor of 2.0-2.5% and said rubber backing sheet possesses a heat shrinkage factor of 2.0-2.5%.

Independent claim 11 differs from claim 1 in that claim 11 has an additional limitation wherein both said rubber backing sheet and said vulcanized solid rubber reinforcement strips possess a modulus strength of greater than about 1,000 pounds per square inch. Claims 3 and 12 limit the substrate and the pile material to be of natural or synthetic fibers. Claims 4 and 13 limit the substrate to be of fibers selected from the group consisting of polyester, nylon, polypropylene, cotton, and blends thereof and said pile material to be of synthetic fibers.

Kerr discloses washable floor mats with ozone resistance comprised of (a) woven or nonwoven carrier material, (b) a pile material of yarns tufted through said carrier material, wherein said yarns may be cotton, nylon, polyester, etc., and (c) a vulcanized rubber backing sheet

Art Unit: 1771

which includes a blow agent (page 3, lines 15-23). Thus, it can be seen that Kerr teaches the limitations of Applicant's claims 1, 3, 4, and 11-13 with the exception of the following: (i) the claimed 'suitable flexibility,' (ii) the claimed 'heat shrinkage factors,' and (iii) the claimed 'modulus strength.'

Although Kerr does explicitly teach Applicant's claimed properties of 'suitable flexibility,' 'heat shrinkage factors,' and 'modulus strength,' it is reasonable to presume that said properties are inherent to the invention of Kerr. Support for said presumption is found in Kerr's use of materials for the substrate, pile, and rubber backing materials which are equivalent to those disclosed by the Applicant. In particular, Kerr teaches the same foam rubber backing material comprising acrylonitrile-butadiene rubber (NBR) or styrene-butadiene rubber (SBR) mixed with EPDM and a blowing agent as is disclosed by the Applicant (page 3, line 51-page 4, line 33). Additionally, Kerr's teaching of the frequent laundering of floor mats (page 2, lines 21-24) is noted as support for the patented floor mat possession of certain properties, such as flexibility. The burden is upon the Applicant to prove otherwise. *In re Fitzgerald*, 205 USPQ 594. In the alternative, the presently claimed properties would obviously have been provided as a result of the materials employed to form the floor mat according to the Kerr patent. *In re Best*, 195 USPQ 433, footnote 4. Therefore, claims 1, 3, 4, and 11-13 are rejected as being anticipated by, or in the alternative, as being obvious over the cited Kerr patent.

10. Claims 9 and 10 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over the cited Kerr patent.

Art Unit: 1771

Claim 9 limits the surface of the foam rubber backing to have a solid skin layer. Claim 10 limits the foam rubber backing to possess a water absorption rate of below about 10%.

Although Kerr does not explicitly teach the limitations of claims 9 and 10, it is reasonable to presume that said limitations are inherent in the invention of Kerr. Support for said presumption is found in Kerr's use of rubber backing materials identical to those disclosed by the Applicant. (See Kerr, page 3, line 51-page 4, line 33 and page 6, lines 45-55). The burden is upon the Applicant to prove otherwise. *In re Fitzgerald*, 205 USPQ 594. In the alternative, the presently claimed properties would obviously have been provided as a result of the materials employed to form the floor mat according to the Kerr patent. *In re Best*, 195 USPQ 433, footnote 4. Therefore, claims 9 and 10 are rejected as being anticipated by, or in the alternative, as being obvious over the cited Kerr patent.

Claim Rejections - 35 USC § 103

11. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over the cited Kerr patent in view of WO 96/38298 issued to Burke et al.

Claim 2 limits the reinforcement strip to being present and possessing a heat shrinkage factor of 2.0-2.5%.

Kerr does not teach of a reinforcement strip. However, said reinforcement strips are well known in the art. For example, Burke discloses reinforcement strips for a rubber backing of a floor mat (abstract). Hence, it would have been obvious to one of ordinary skill at the time of the

Art Unit: 1771

invention to add reinforcement strips to the invention of Kerr. Motivation to do so would be to improve the tear resistance of Kerr's floor mat. With regard to the claimed heat shrinkage factor, it is reasonable to presume that reinforcement strips, as taught by Burke, applied to the Kerr invention would inherently possess the claimed heat shrinkage factor. Alternatively, the presently claimed heat shrinkage factor would obviously have been provided as a result of the combined teachings of Burke and Kerr. Therefore, claim 2 is rejected as being obvious over the cited Kerr patent.

12. Claims 6, 7, 15, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over the cited Kerr patent in view of US Patent 4,820,566 issued to Heine et al.

Claims 6 and 15 limit the nonwoven substrate to having a basis weight of 3-5-4.0 oz/yd². Claims 7 and 16 limit said nonwoven to a basis weight of about 4.0 oz/yd².

Kerr does not explicitly teach the basis weight of the primary backing (nonwoven substrate). However, primary backings having basis weights within the range claimed by the Applicant are well known in the art of carpeting, and particularly, the art of floor mats. For example, Heine discloses a floor mat with a primary backing of a woven or nonwoven material, wherein said primary backing has a basis weight on the order of 135 g/m², or 4 oz/yd² (col. 5, lines 31-40). Hence, it would have been obvious to one of ordinary skill in the art to employ a primary backing, or nonwoven substrate, as is taught by Heine, in the invention of Kerr. The lack of an explicit teaching in Kerr would motivate one of ordinary skill in the art to look to prior art

Art Unit: 1771

teachings, such as Heine, wherein a primary backing for a floor mat is taught. Therefore, claims 6, 7, 15, and 16 are rejected as being obvious over the cited prior art.

13. Claims 5 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over the cited Kerr patent in view of the cited Heine patent and US Patent 5,906,877 issued to Popper et al.

Claims 5 and 14 limit the nonwoven substrate to be of polyester fibers and the pile material to be 100% solution dyed nylon fibers.

Although Kerr does not teach Applicant's claimed primary backing or pile material, said primary backing and pile material are well known in the art of carpeting. Specifically, Kerr teaches a nonwoven primary backing of a suitable material (page 3, line 40). Since a specific primary backing material is not suggested by Kerr, it is reasonable to presume that one would look to the prior art in choosing a suitable material. Heine teaches suitable materials for primary backings include polyester and polypropylene. Hence, it would have been obvious to one skilled in the art to choose a polyester nonwoven as a primary backing for the Kerr invention.

Motivation to do so would be the durability, cost, and availability of polyester nonwovens.

With regard to the solution dyed nylon fibers, it is noted that Kerr does teach of a 100% nylon pile material, but is silent on the nylon fibers being solution dyed. However, solution dyed nylon fibers are well known in the carpet art. For example, Popper teaches the use of solution dyed nylon fibers to form tufting yarns (col. 7, line 21-col.8, line 54). Hence, it would have been obvious to one of ordinary skill in the art to employ solution dyed nylon yarns, as is taught by Popper, in the Kerr invention. Motivation to do so would be the inherent advantages of solution

Art Unit: 1771

dyed fibers, such as durability of dyestuff and a decrease in manufacture costs due to the elimination of a dyeing step. Therefore, claims 5 and 14 are rejected as being obvious over the cited prior art.

14. Claims 8 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over the cited Kerr patent in view of US Patent 4,722,954 issued to Hallworth.


Claims 8 and 17 limit the rubber backing sheet to include silica. Although Kerr does not explicitly teach the presence of silica in the foam rubber backing, the use of fillers is well known in the art of carpeting. For example, Hallworth teaches the use of silica in a foamed rubber backing useful as a carpet backing (abstract and col. 1, lines 9-27). Hence, it would have been obvious to employ a filler, such as silica, as is taught by Hallworth, in the invention of Kerr. Motivation to do so would be to decrease the cost and weight of the rubber backing. Motivation to choose silica as a particular filler would be the low cost of silica (sand). Hence, claims 8 and 17 are rejected as being obvious over the cited Kerr and Hallworth patents.

Conclusion

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cheryl Juska whose telephone number is (703) 305-4472. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris, can be reached at (703) 308-2414. Fax numbers for this Group are (703) 305-3601 and (703) 305-7718.

cj

October 20, 1999


CHRISTOPHER RAIMUND
PRIMARY EXAMINER
GROUP 1300